

## APPENDIX B

### HYDROCARBON SPECIATION DATA

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**TABLE B-1. COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL WITH  
AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/2/2008	1/3/2008	1/4/2008		1/2/2008	1/3/2008	1/4/2008	
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	Average	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	Average
METHANE	8.8	7.8	45.1	20.6	2.1	5.8	10.2	6.0
ETHANE	0.7	0.7	1.5	1.0	0.6	0.6	0.7	0.6
ETHYLENE	15.6	7.8	12.9	12.1	6.6	4.4	4.5	5.2
PROPANE	ND	0.1	0.5	0.2	ND	ND	ND	ND
PROPYLENE	3.2	1.4	2.6	2.4	0.9	0.8	0.6	0.8
ACETYLENE	ND	ND	ND	ND	ND	ND	ND	ND
PROPADIENE	ND	ND	ND	ND	ND	ND	ND	ND
BUTANE	trace	trace	trace	trace	trace	trace	trace	trace
TRANS-2-BUTENE	0.2	ND	0.3	0.2	ND	ND	0.1	trace
1-BUTENE	0.7	0.2	0.6	0.5	ND	ND	ND	ND
2-METHYLPROPENE (ISOBUTYLENE)	0.6	0.3	0.6	0.5	0.2	0.2	0.2	0.2
2,2-DIMETHYLPROPANE (NEOPENTANE)	0.4	0.1	ND	0.2	ND	ND	ND	ND
PROPYNE	ND	ND	ND	ND	ND	ND	ND	ND
1,3-BUTADIENE	0.5	ND	0.3	0.3	ND	ND	ND	ND
2-METHYLPROPANE (ISOBUTANE)	0.4	0.2	0.3	0.3	0.1	trace	trace	0.1
1-BUTYNE	ND	ND	ND	ND	ND	ND	ND	ND
METHANOL	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-BUTENE	ND	ND	0.1	trace	ND	ND	ND	ND
3-METHYL-1-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
ETHANOL	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLBUTANE (ISOPENTANE)	ND	ND	ND	ND	ND	ND	ND	ND
2-BUTYNE	ND	ND	ND	ND	ND	ND	ND	ND
1-PENTENE	0.2	ND	0.2	0.1	ND	ND	ND	ND
2-METHYL-1-BUTENE	0.7	ND	0.1	0.3	ND	ND	ND	ND
PENTANE	0.2	0.4	0.6	0.4	0.5	0.2	0.1	0.2
UNIDENTIFIED C5 OLEFINS	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYL-1,3-BUTADIENE	0.2	ND	0.1	0.1	ND	ND	ND	ND
TRANS-2-PENTENE	ND	ND	0.1	trace	ND	ND	ND	ND
3,3-DIMETHYL-1-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-1 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/2/2008	1/3/2008	1/4/2008	Average	1/2/2008	1/3/2008	1/4/2008	Average
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3		NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	
2-METHYL-2-BUTENE	ND	ND	0.2	0.1	ND	ND	ND	ND
TERT-BUTANOL	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOPENTADIENE	0.6	ND	0.4	0.3	ND	0.2	ND	0.1
2,2-DIMETHYLBUTANE	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOPENTENE	ND	ND	ND	ND	ND	ND	ND	ND
4-METHYL-1-PENTENE	ND	ND	0.2	0.1	ND	ND	ND	ND
3-METHYL-1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLBUTANE	0.2	ND	0.2	0.1	ND	ND	ND	ND
MTBE	ND	ND	ND	ND	ND	ND	ND	ND
4-METHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLPENTANE	ND	ND	ND	ND	ND	ND	0.2	0.1
4-METHYL-TRANS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLPENTANE	ND	0.1	ND	trace	ND	ND	ND	ND
2-METHYL-1-PENTENE	0.2	0.1	0.1	0.1	ND	ND	ND	ND
1-HEXENE	0.2	0.1	0.1	0.1	ND	ND	ND	ND
HEXANE	ND	ND	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C6	ND	ND	ND	ND	ND	ND	0.7	0.2
TRANS-3-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-3-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
DI-ISOPROPYL ETHER	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-TRANS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYL-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLCYCLOPENTENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
ETBE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLPENTANE, NOTE A	ND	ND	ND	ND	ND	ND	ND	ND
METHYLCYCLOPENTANE, NOTE A	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-1 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL  
WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/2/2008	1/3/2008	1/4/2008		1/2/2008	1/3/2008	1/4/2008	
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	Average	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	Average
2,4-DIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,3-TRIMETHYLBUTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,4-DIMETHYL-1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYLCYCLOPENTENE	ND	ND	ND	ND	ND	ND	ND	ND
BENZENE	1.3	0.7	1.4	1.1	0.7	0.5	0.7	0.6
3-METHYL-1-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLPENTANE	0.2	0.2	ND	0.1	ND	trace	ND	trace
1,1-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-AMYL METHYL ETHER	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOHEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLHEXANE	ND	ND	trace	trace	ND	ND	ND	ND
CIS-1,3-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
3-ETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,2-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,3-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
1-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,4-TRIMETHYLPENTANE	0.4	0.3	0.1	0.3	trace	0.1	ND	trace
2-METHYL-1-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-3-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
HEPTANE	trace	trace	trace	trace	ND	ND	ND	ND
CIS-3-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C7	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYL-2-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-TRANS-3-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-ETHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYL-1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-1 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL  
WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/2/2008	1/3/2008	1/4/2008		1/2/2008	1/3/2008	1/4/2008	
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	Average	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	Average
2,3-DIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
METHYLCYCLOHEXANE	ND	ND	0.2	0.1	ND	ND	ND	ND
CIS-1,2-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1,1,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,5-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1-TRANS-2-CIS-4-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1-TRANS-2-CIS-3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TOLUENE	1.0	0.6	0.8	0.8	0.4	0.2	0.3	0.3
2,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,4-DIMETHYLHEXANE, NOTE B	ND	ND	ND	ND	ND	ND	ND	ND
4-METHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
1-CIS,2-TRANS,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,3-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,4-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
3-ETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,5-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1-METHYL-3-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1-METHYL-3-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-1 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/2/2008	1/3/2008	1/4/2008		1/2/2008	1/3/2008	1/4/2008	
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	Average	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	Average
1,1-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1-METHYL-2-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-1-ETHYL-CYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,2-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-4-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
OCTANE	ND	ND	0.2	0.1	ND	ND	ND	ND
UNIDENTIFIED C8	ND	0.2	ND	0.1	ND	ND	ND	ND
TRANS-2-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,3-DIMETHYLCYCLOHEXANE, NOTE C	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
ISOPROPYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3,5-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1-METHYL-2-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
4,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,6-DIMETHYLHEPTANE, NOTE D	ND	ND	ND	ND	ND	ND	ND	ND
1,1,3-TRIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,5-DIMETHYLHEPTANE, NOTE E	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,5-DIMETHYLHEPTANE, NOTE E	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	0.3	0.1	ND	ND	ND	ND
2,3,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
m- & p-XYLENE	ND	ND	0.4	0.1	ND	ND	ND	ND

**TABLE B-1 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/2/2008	1/3/2008	1/4/2008	Average	1/2/2008	1/3/2008	1/4/2008	Average
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3		NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	
4-METHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
4-ETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
STYRENE	ND	ND	ND	ND	ND	ND	ND	ND
o-XYLENE	ND	ND	0.3	0.1	ND	ND	ND	ND
1-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-3-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-3-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
NONANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
ISOPROPYLBENZENE (CUMENE)	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
n-PROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-3-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-2-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRIMETHYLBENZENE	0.3	ND	0.5	0.3	ND	ND	ND	ND
TERT-BUTYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-DECENE	ND	ND	ND	ND	ND	ND	ND	ND
DECANE, NOTE F	0.3	0.2	0.2	0.2	ND	ND	ND	ND
ISOBUTYLBENZENE, NOTE F	ND	ND	0.2	0.1	ND	ND	ND	ND
1,3,-DIMETHYL-5-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
METHYLPROPYLBENZENE (see butylbenzene)	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-3-ISOPROPYLBENZENE	0.2	0.1	0.3	0.2	ND	ND	ND	ND
1,2,3-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-4-ISOPROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-1 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL  
WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/2/2008	1/3/2008	1/4/2008		1/2/2008	1/3/2008	1/4/2008	
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	Average	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	Average
INDAN	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-2-ISOPROPYLBENZENE	0.2	ND	0.2	0.1	ND	ND	ND	ND
1,3-DIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-3-N-PROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-4-N-PROPYLBENZENE, NOTE G	ND	ND	ND	ND	ND	ND	ND	ND
1,2 DIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-2-N-PROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DIMETHYL-2-ETHYLBENZENE	0.7	ND	0.3	0.3	ND	ND	ND	ND
1,3-DIMETHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DIMETHYL-4-ETHYLBENZENE	0.7	ND	0.6	0.4	ND	ND	ND	ND
1,3-DIMETHYL-2-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
UNDECANE	0.3	0.1	0.8	0.4	ND	ND	ND	ND
1,2-DIMETHYL-3-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-TETRAMETHYLBENZENE	1.0	0.4	0.8	0.7	ND	ND	ND	ND
2-METHYLBUTYLBENZENE (sec AMYLBENZENE)	ND	ND	ND	ND	ND	ND	ND	ND
3,4 DIMETHYLCUMENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,5-TETRAMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-1-BUT-2-METHYLBENZENE	0.2	ND	ND	0.1	ND	ND	ND	ND
1,2,3,4-TETRAMETHYLBENZENE	0.2	ND	0.3	0.2	ND	ND	ND	ND
N-PENT-BENZENE	0.2	ND	0.2	0.1	ND	ND	ND	ND
TERT-1-BUT-3,5-DIMETHYLBENZENE	0.3	0.4	ND	0.2	ND	0.1	ND	trace
TERT-1-BUTYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
NAPHTHALENE	ND	ND	ND	ND	ND	ND	ND	ND
DODECANE	1.2	0.2	0.9	0.8	ND	ND	ND	ND
1,3,5-TRIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
HEXYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C9-C12+	2.1	0.4	2.1	1.5	ND	0.2	ND	0.1
FORMALDEHYDE	13.9	2.9	5.7	7.5	ND	ND	ND	ND



**TABLE B-1 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL  
WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/2/2008	1/3/2008	1/4/2008		1/2/2008	1/3/2008	1/4/2008	
COMPOUND	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	Average	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	Average
ACETALDEHYDE	3.2	1.6	2.8	2.5	ND	ND	ND	ND
ACROLEIN	0.9	0.3	0.3	0.5	ND	ND	ND	ND
ACETONE	3.2	1.1	ND	1.4	ND	ND	ND	ND
PROPIONALDEHYDE	0.1	ND	ND	0.0	ND	ND	ND	ND
CROTONALDEHYDE	ND	ND	0.3	0.1	ND	ND	ND	ND
ISOBUTYRALDEHYDE, NOTE H	trace	trace	trace	trace	ND	ND	ND	ND
METHYL ETHYL KETONE, NOTE H	trace	trace	trace	trace	ND	ND	ND	ND
BENZALDEHYDE	0.1	trace	ND	trace	ND	ND	trace	trace
ISOVALERALDEHYDE	trace	ND	trace	0.0	trace	ND	ND	trace
VALERALDEHYDE	0.4	0.2	0.1	0.2	ND	0.2	ND	0.1
O-TOLUALDEHYDE	ND	ND	ND	ND	ND	ND	ND	ND
M/P-TOLUALDEHYDE	trace	trace	trace	trace	trace	ND	trace	trace
HEXANALDEHYDE	trace	ND	ND	trace	ND	ND	ND	ND
DIMETHYLBENZALDEHYDE	ND	ND	ND	ND	ND	ND	ND	ND
SUMMED SPECIATED VALUES	66.3	29.0	87.7	61.0	12.1	13.5	18.2	14.6

A - 2,2-Dimethylpentane and methylcyclopentane co-elute. GC peak area split equally between the two compounds.  
 B - 3-Methyl-3-ethyl-pentane co-elutes with reported compound. Not reported separately.  
 C - Cis-1,4-Dimethylcyclohexane co-elutes with reported compound. Not reported separately.  
 D - Propylcyclopentane co-elutes with reported compound. Not reported separately.  
 E - 2,5-Dimethylheptane and 3,5-dimethylheptane co-elute. GC peak area split equally between the two compounds.  
 F - Decane and isobutylbenzene co-elute. GC peak area split equally between the two compounds.  
 G - n-Butylbenzene co-elutes with reported compound. Not reported separately.  
 H - Isobutyraldehyde and methyl ethyl ketone co-elute. LC peak area split equally between the two compounds.  
 ND = Not Detected

**TABLE B-2. COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	12/17/2007	12/18/2007	12/19/2007	Average	12/17/2007	12/18/2007	12/19/2007	Average
	NPBASE-1	NPBASE-2	NPBASE-3		NPBASE-1	NPBASE-2	NPBASE-3	
METHANE	18.7	14.9	12.8	15.5	16.2	13.9	12.5	14.2
ETHANE	0.5	0.5	trace	0.4	0.5	0.4	0.9	0.6
ETHYLENE	40.4	38.1	37.2	38.5	33.9	32.4	32.6	33.0
PROPANE	ND	ND	trace	trace	ND	ND	ND	ND
PROPYLENE	9.4	9.3	9.0	9.2	7.4	7.3	7.1	7.3
ACETYLENE	ND	ND	ND	ND	ND	ND	ND	ND
PROPADIENE	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
BUTANE	trace	trace	trace	trace	trace	trace	trace	trace
TRANS-2-BUTENE	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3
1-BUTENE	2.2	2.1	2.0	2.1	1.6	1.6	1.6	1.6
2-METHYLPROPENE (ISOBUTYLENE)	1.5	1.4	1.4	1.5	1.1	1.1	1.1	1.1
2,2-DIMETHYLPROPANE (NEOPENTANE)	1.3	ND	0.2	0.5	0.1	0.1	ND	0.1
PROPYNE	ND	ND	ND	ND	ND	ND	ND	ND
1,3-BUTADIENE	3.6	3.3	3.2	3.4	2.8	2.7	2.6	2.7
2-METHYLPROPANE (ISOBUTANE)	11.7	11.1	11.1	11.3	10.5	10.3	10.3	10.4
1-BUTYNE	ND	ND	ND	ND	ND	ND	ND	ND
METHANOL	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-BUTENE	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2
3-METHYL-1-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
ETHANOL	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLBUTANE (ISOPENTANE)	0.7	0.8	0.7	0.7	0.7	0.6	0.6	0.6
2-BUTYNE	ND	ND	ND	ND	ND	ND	ND	ND
1-PENTENE	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.5
2-METHYL-1-BUTENE	1.9	1.4	0.9	1.4	1.0	0.7	0.3	0.7
PENTANE	0.4	0.3	0.1	0.2	1.1	0.9	0.2	0.7
UNIDENTIFIED C5 OLEFINS	0.2	0.2	0.2	0.2	ND	ND	ND	ND
2-METHYL-1,3-BUTADIENE	0.8	0.7	0.7	0.7	0.6	0.5	0.5	0.5
TRANS-2-PENTENE	0.2	0.2	0.2	0.2	0.2	ND	0.2	0.1
3,3-DIMETHYL-1-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-2 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	12/17/2007	12/18/2007	12/19/2007		12/17/2007	12/18/2007	12/19/2007	
	NPBASE-1	NPBASE-2	NPBASE-3	Average	NPBASE-1	NPBASE-2	NPBASE-3	Average
2-METHYL-2-BUTENE	ND	0.2	ND	0.1	ND	ND	ND	ND
TERT-BUTANOL	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOPENTADIENE	0.9	0.8	0.4	0.7	0.5	ND	trace	0.2
2,2-DIMETHYLBUTANE	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
CYCLOPENTENE	0.4	0.3	0.3	0.4	0.3	ND	ND	0.1
4-METHYL-1-PENTENE	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2
3-METHYL-1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOPENTANE	0.9	1.1	0.6	0.9	0.4	0.3	0.5	0.4
2,3-DIMETHYLBUTANE	ND	0.4	ND	0.1	ND	ND	0.2	0.1
MTBE	ND	ND	ND	ND	ND	ND	ND	ND
4-METHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLPENTANE	ND	0.2	ND	0.1	ND	0.2	0.2	0.1
4-METHYL-TRANS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLPENTANE	1.6	0.3	2.1	1.4	1.6	1.0	1.6	1.4
2-METHYL-1-PENTENE	0.7	0.7	0.6	0.7	0.4	0.4	0.4	0.4
1-HEXENE	0.7	0.7	0.6	0.7	0.4	0.4	0.4	0.4
HEXANE	0.3	ND	ND	0.1	ND	ND	ND	ND
UNIDENTIFIED C6	1.2	2.4	1.6	1.7	1.4	1.3	ND	0.9
TRANS-3-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-3-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
DI-ISOPROPYL ETHER	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-TRANS-2-PENTENE	0.3	0.2	ND	0.2	ND	ND	ND	ND
2-METHYL-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLCYCLOPENTENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
ETBE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLPENTANE, NOTE A	0.1	0.1	0.1	0.1	0.1	ND	0.1	0.1
METHYLCYCLOPENTANE, NOTE A	0.1	0.1	0.1	0.1	0.1	ND	0.1	0.1

**TABLE B-2 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	12/17/2007	12/18/2007	12/19/2007		12/17/2007	12/18/2007	12/19/2007	
	NPBASE-1	NPBASE-2	NPBASE-3	Average	NPBASE-1	NPBASE-2	NPBASE-3	Average
2,4-DIMETHYLPENTANE	0.2	ND	ND	0.1	ND	ND	ND	ND
2,2,3-TRIMETHYLBUTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,4-DIMETHYL-1-PENTENE	0.2	ND	ND	0.1	0.2	ND	ND	0.1
1-METHYLCYCLOPENTENE	ND	0.2	ND	0.1	ND	ND	ND	ND
BENZENE	3.9	4.0	3.8	3.9	3.8	3.2	3.2	3.4
3-METHYL-1-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLPENTANE	ND	0.1	trace	trace	ND	ND	ND	ND
1,1-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-AMYL METHYL ETHER	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOHEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLHEXANE	ND	ND	0.2	0.1	ND	ND	ND	ND
CIS-1,3-DIMETHYLCYCLOPENTANE	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
3-ETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,2-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,3-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
1-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,4-TRIMETHYLPENTANE	0.6	0.5	0.5	0.5	0.4	0.3	0.2	0.3
2-METHYL-1-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-3-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
HEPTANE	ND	ND	trace	trace	0.2	ND	0.2	0.1
CIS-3-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C7	ND	ND	ND	ND	ND	0.2	ND	0.1
2-METHYL-2-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-TRANS-3-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-ETHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYL-1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-2 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	12/17/2007	12/18/2007	12/19/2007		12/17/2007	12/18/2007	12/19/2007	
	NPBASE-1	NPBASE-2	NPBASE-3	Average	NPBASE-1	NPBASE-2	NPBASE-3	Average
2,3-DIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
METHYLCYCLOHEXANE	0.2	0.2	ND	0.1	ND	ND	0.2	0.1
CIS-1,2-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1,1,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,5-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLHEXANE	ND	0.3	0.3	0.2	ND	0.2	ND	0.1
1-TRANS-2-CIS-4-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1-TRANS-2-CIS-3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4-TRIMETHYLPENTANE	0.2	0.2	0.3	0.2	ND	ND	ND	ND
2,3,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TOLUENE	1.5	1.5	1.2	1.4	1.3	1.4	0.8	1.2
2,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,4-DIMETHYLHEXANE, NOTE B	ND	ND	ND	ND	ND	ND	ND	ND
4-METHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
1-CIS,2-TRANS,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,3-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,4-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
3-ETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,5-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1-METHYL-3-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1-METHYL-3-ETHYLCYCLOPENTANE	0.4	0.3	0.3	0.4	0.2	0.2	0.2	0.2

**TABLE B-2 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	12/17/2007	12/18/2007	12/19/2007		12/17/2007	12/18/2007	12/19/2007	
	NPBASE-1	NPBASE-2	NPBASE-3	Average	NPBASE-1	NPBASE-2	NPBASE-3	Average
1,1-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1-METHYL-2-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-1-ETHYL-CYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,2-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-4-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
OCTANE	ND	ND	0.2	0.1	ND	ND	ND	ND
UNIDENTIFIED C8	0.2	0.2	ND	0.1	ND	ND	ND	ND
TRANS-2-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,3-DIMETHYLCYCLOHEXANE, NOTE C	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
ISOPROPYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3,5-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1-METHYL-2-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLHEPTANE	0.2	ND	ND	0.1	ND	ND	ND	ND
4,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,6-DIMETHYLHEPTANE, NOTE D	0.2	ND	ND	0.1	ND	0.2	ND	0.1
1,1,3-TRIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,5-DIMETHYLHEPTANE, NOTE E	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,5-DIMETHYLHEPTANE, NOTE E	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLBENZENE	0.4	0.4	0.4	0.4	0.3	0.2	0.3	0.3
2,3,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
m- & p-XYLENE	1.1	1.1	0.9	1.0	0.8	0.7	0.6	0.7

**TABLE B-2 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL  
WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	12/17/2007	12/18/2007	12/19/2007		12/17/2007	12/18/2007	12/19/2007	
	NPBASE-1	NPBASE-2	NPBASE-3	Average	NPBASE-1	NPBASE-2	NPBASE-3	Average
4-METHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
4-ETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
STYRENE	ND	ND	ND	ND	ND	ND	ND	ND
o-XYLENE	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3
1-NONENE	0.3	0.3	0.2	0.3	ND	ND	ND	ND
TRANS-3-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-3-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
NONANE	0.2	0.2	0.2	0.2	0.2	ND	0.2	0.1
TRANS-2-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
ISOPROPYL BENZENE (CUMENE)	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLOCTANE	ND	0.2	ND	0.1	ND	ND	ND	ND
n-PROPYLBENZENE	0.3	0.2	0.2	0.2	ND	ND	ND	ND
1-METHYL-3-ETHYLBENZENE	0.3	0.3	0.3	0.3	ND	ND	0.2	0.1
1-METHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-TRIMETHYLBENZENE	0.2	0.2	0.2	0.2	ND	ND	ND	ND
1-METHYL-2-ETHYLBENZENE	ND	ND	0.2	0.1	ND	ND	ND	ND
1,2,4-TRIMETHYLBENZENE	1.0	0.9	0.2	0.7	0.6	0.7	0.8	0.7
TERT-BUTYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-DECENE	ND	ND	ND	ND	ND	ND	ND	ND
DECANE, NOTE F	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1
ISOBUTYLBENZENE, NOTE F	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1
1,3-DIMETHYL-5-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
METHYLPROPYLBENZENE (sec butylbenzene)	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-3-ISOPROPYLBENZENE	0.3	0.3	0.2	0.2	0.2	ND	ND	0.1
1,2,3-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-4-ISOPROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-2 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL  
WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	12/17/2007	12/18/2007	12/19/2007		12/17/2007	12/18/2007	12/19/2007	
	NPBASE-1	NPBASE-2	NPBASE-3	Average	NPBASE-1	NPBASE-2	NPBASE-3	Average
INDAN	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-2-ISOPROPYLBENZENE	0.5	0.4	0.2	0.4	0.2	0.1	0.2	0.2
1,3-DIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DIETHYLBENZENE	0.2	0.3	0.4	0.3	0.2	ND	0.3	0.2
1-METHYL-3-N-PROPYLBENZENE	ND	0.8	0.5	0.4	ND	0.2	ND	0.1
1-METHYL-4-N-PROPYLBENZENE, NOTE G	ND	ND	ND	ND	ND	ND	ND	ND
1,2 DIETHYLBENZENE	0.6	0.2	0.2	0.3	ND	ND	ND	ND
1-METHYL-2-N-PROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DIMETHYL-2-ETHYLBENZENE	ND	0.6	0.3	0.3	0.6	ND	0.5	0.4
1,3-DIMETHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DIMETHYL-4-ETHYLBENZENE	1.1	1.1	0.8	1.0	ND	ND	ND	ND
1,3-DIMETHYL-2-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
UNDECANE	0.7	0.6	0.4	0.5	0.3	0.2	0.2	0.2
1,2-DIMETHYL-3-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-TETRAMETHYLBENZENE	1.5	1.5	1.5	1.5	0.5	0.3	0.9	0.6
2-METHYLBUTYLBENZENE (sec AMYLBENZENE)	ND	ND	ND	ND	ND	ND	ND	ND
3,4 DIMETHYLCUMENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,5-TETRAMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-1-BUT-2-METHYLBENZENE	0.2	0.2	0.8	0.4	0.6	0.3	0.3	0.4
1,2,3,4-TETRAMETHYLBENZENE	0.2	0.1	0.4	0.2	0.3	0.5	0.5	0.4
N-PENT-BENZENE	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
TERT-1-BUT-3,5-DIMETHYLBENZENE	1.8	1.6	1.5	1.6	1.2	0.7	0.2	0.7
TERT-1-BUTYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
NAPHTHALENE	ND	ND	ND	ND	ND	ND	ND	ND
DODECANE	1.1	1.1	0.2	0.8	0.1	0.7	0.6	0.5
1,3,5-TRIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
HEXYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C9-C12+	7.6	6.7	3.9	6.1	4.0	3.3	2.1	3.1
FORMALDEHYDE	22.0	ND	ND	7.3	ND	ND	ND	ND



**TABLE B-2 (CONT'D). COLD- AND HOT-START HYDROCARBON SPECIATION DATA FOR 211B BASELINE FUEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	12/17/2007	12/18/2007	12/19/2007		12/17/2007	12/18/2007	12/19/2007	
	NPBASE-1	NPBASE-2	NPBASE-3	Average	NPBASE-1	NPBASE-2	NPBASE-3	Average
ACETALDEHYDE	2.4	0.6	ND	1.0	ND	ND	ND	ND
ACROLEIN	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	1.0	ND	ND	0.3	ND	ND	ND	ND
PROPIONALDEHYDE	0.3	ND	ND	0.1	ND	ND	ND	ND
CROTONALDEHYDE	0.3	0.2	ND	0.2	0.2	ND	ND	0.1
ISOBUTYRALDEHYDE, NOTE H	ND	0.4	ND	0.1	ND	ND	ND	ND
METHYL ETHYL KETONE, NOTE H	ND	0.4	ND	0.1	ND	ND	ND	ND
BENZALDEHYDE	1.8	1.9	ND	1.2	1.5	ND	ND	0.5
ISOVALERALDEHYDE	0.3	0.1	0.1	0.2	ND	ND	0.5	0.2
VALERALDEHYDE	ND	0.5	ND	0.2	ND	ND	ND	ND
O-TOLUALDEHYDE	ND	ND	ND	ND	trace	ND	0.3	0.1
M/P-TOLUALDEHYDE	0.4	ND	ND	0.1	ND	ND	ND	ND
HEXANALDEHYDE	ND	ND	0.5	0.2	ND	tra	ND	trace
DIMETHYLBENZALDEHYDE	0.1	0.2	ND	0.1	ND	ND	0.2	0.1
SUMMED SPECIATED VALUES	160.3	126.2	111.3	132.6	103.6	92.3	89.8	95.2

A - 2,2-Dimethylpentane and methylcyclopentane co-elute. GC peak area split equally between the two compounds.

B - 3-Methyl-3-ethyl-pentane co-elutes with reported compound. Not reported separately.

C - Cis-1,4-Dimethylcyclohexane co-elutes with reported compound. Not reported separately.

D - Propylcyclopentane co-elutes with reported compound. Not reported separately.

E - 2,5-Dimethylheptane and 3,5-dimethylheptane co-elute. GC peak area split equally between the two compounds.

F - Decane and isobutylbenzene co-elute. GC peak area split equally between the two compounds.

G - n-Butylbenzene co-elutes with reported compound. Not reported separately.

H - Isobutyraldehyde and methyl ethyl ketone co-elute. LC peak area split equally between the two compounds.

ND = Not Detected

**TABLE B-3. COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/29/2008	1/30/2008	1/31/2008	Average	1/29/2008	1/30/2008	1/31/2008	Average
	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3		NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	
METHANE	28.5	18.0	21.8	22.8	33.4	20.4	23.0	25.6
ETHANE	1.7	0.8	1.0	1.2	1.6	0.9	1.2	1.2
ETHYLENE	11.0	6.8	7.9	8.5	11.4	6.1	7.3	8.3
PROPANE	trace	ND	trace	trace	ND	trace	trace	trace
PROPYLENE	0.5	0.3	0.4	0.4	0.4	0.3	0.2	0.3
ACETYLENE	ND	ND	ND	ND	ND	ND	ND	ND
PROPADIENE	ND	ND	ND	ND	ND	ND	ND	ND
BUTANE	ND	trace	trace	trace	ND	0.1	trace	trace
TRANS-2-BUTENE	0.2	ND	ND	0.1	0.2	ND	ND	0.1
1-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLPROPENE (ISOBUTYLENE)	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLPROPANE (NEOPENTANE)	ND	ND	ND	ND	ND	ND	ND	ND
PROPYNE	ND	ND	ND	ND	ND	ND	ND	ND
1,3-BUTADIENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLPROPANE (ISOBUTANE)	1.0	0.4	0.4	0.6	0.1	0.1	0.1	0.1
1-BUTYNE	ND	ND	ND	ND	ND	ND	ND	ND
METHANOL	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-1-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
ETHANOL	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLBUTANE (ISOPENTANE)	ND	ND	ND	ND	ND	ND	ND	ND
2-BUTYNE	ND	ND	ND	ND	ND	ND	ND	ND
1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYL-1-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
PENTANE	0.1	0.2	ND	0.1	0.3	ND	ND	0.1
UNIDENTIFIED C5 OLEFINS	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYL-1,3-BUTADIENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYL-1-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-3 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/29/2008	1/30/2008	1/31/2008		1/29/2008	1/30/2008	1/31/2008	
	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average
2-METHYL-2-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-BUTANOL	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOPENTADIENE	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLBUTANE	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOPENTENE	ND	ND	ND	ND	ND	ND	ND	ND
4-METHYL-1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLBUTANE	ND	ND	ND	ND	ND	0.2	ND	0.1
MTBE	ND	ND	ND	ND	ND	ND	ND	ND
4-METHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLPENTANE	0.2	0.2	ND	0.1	trace	trace	ND	trace
4-METHYL-TRANS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLPENTANE	0.2	ND	ND	0.1	ND	ND	ND	ND
2-METHYL-1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
1-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
HEXANE	ND	ND	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C6	0.2	0.6	0.1	0.3	0.2	0.8	0.3	0.4
TRANS-3-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-3-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
DI-ISOPROPYL ETHER	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-TRANS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYL-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLCYCLOPENTENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
ETBE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLPENTANE, NOTE A	ND	ND	ND	ND	ND	ND	ND	ND
METHYLCYCLOPENTANE, NOTE A	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-3 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/29/2008	1/30/2008	1/31/2008		1/29/2008	1/30/2008	1/31/2008	
	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average
2,4-DIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,3-TRIMETHYLBUTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,4-DIMETHYL-1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYLCYCLOPENTENE	ND	ND	ND	ND	ND	ND	ND	ND
BENZENE	1.8	0.9	1.0	1.2	1.6	0.8	0.9	1.1
3-METHYL-1-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
1,1-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-AMYL METHYL ETHER	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOHEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLHEXANE	ND	ND	ND	ND	0.2	ND	ND	0.1
CIS-1,3-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
3-ETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,2-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,3-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
1-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,4-TRIMETHYLPENTANE	ND	trace	ND	trace	trace	ND	0.1	trace
2-METHYL-1-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-3-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
HEPTANE	trace	ND	ND	trace	0.2	ND	ND	0.1
CIS-3-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C7	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYL-2-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-TRANS-3-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-ETHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYL-1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-3 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/29/2008	1/30/2008	1/31/2008		1/29/2008	1/30/2008	1/31/2008	
	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average
2,3-DIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
METHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1,1,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,5-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1-TRANS-2-CIS-4-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1-TRANS-2-CIS-3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TOLUENE	0.2	0.2	0.3	0.2	0.1	0.2	ND	0.1
2,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,4-DIMETHYLHEXANE, NOTE B	ND	ND	ND	ND	ND	ND	ND	ND
4-METHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
1-CIS,2-TRANS,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,3-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,4-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
3-ETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,5-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1-METHYL-3-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1-METHYL-3-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-3 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL OPERATION WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/29/2008	1/30/2008	1/31/2008		1/29/2008	1/30/2008	1/31/2008	
	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average
1,1-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1-METHYL-2-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-1-ETHYL-CYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,2-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-4-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
OCTANE	ND	ND	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C8	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,3-DIMETHYLCYCLOHEXANE, NOTE C	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
ISOPROPYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3,5-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1-METHYL-2-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
4,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,6-DIMETHYLHEPTANE, NOTE D	ND	ND	ND	ND	ND	ND	ND	ND
1,1,3-TRIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,5-DIMETHYLHEPTANE, NOTE E	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,5-DIMETHYLHEPTANE, NOTE E	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
m- & p-XYLENE	trace	ND	0.2	0.1	0.4	ND	ND	0.1

**TABLE B-3 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/29/2008	1/30/2008	1/31/2008		1/29/2008	1/30/2008	1/31/2008	
	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average
4-METHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
4-ETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
STYRENE	ND	ND	ND	ND	ND	ND	ND	ND
o-XYLENE	ND	ND	ND	ND	0.2	ND	ND	0.1
1-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-3-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-3-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
NONANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
ISOPROPYLBENZENE (CUMENE)	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
n-PROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-3-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-2-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-BUTYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-DECENE	ND	ND	ND	ND	ND	ND	ND	ND
DECANE, NOTE F	ND	ND	ND	ND	ND	ND	ND	ND
ISOBUTYLBENZENE, NOTE F	ND	ND	ND	ND	ND	ND	ND	ND
1,3,-DIMETHYL-5-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
METHYLPROPYLBENZENE (sec butylbenzene)	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-3-ISOPROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-4-ISOPROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-3 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/29/2008	1/30/2008	1/31/2008		1/29/2008	1/30/2008	1/31/2008	
	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average
INDAN	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-2-ISOPROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-3-N-PROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-4-N-PROPYLBENZENE, NOTE G	ND	ND	ND	ND	ND	ND	ND	ND
1,2 DIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-2-N-PROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DIMETHYL-2-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DIMETHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DIMETHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DIMETHYL-2-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
UNDECANE	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DIMETHYL-3-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-TETRAMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLBUTYLBENZENE (sec AMYLBENZENE)	ND	ND	ND	ND	ND	ND	ND	ND
3,4 DIMETHYLCUMENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,5-TETRAMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-1-BUT-2-METHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4-TETRAMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
N-PENT-BENZENE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-1-BUT-3,5-DIMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-1-BUTYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
NAPHTHALENE	ND	ND	ND	ND	ND	ND	ND	ND
DODECANE	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-TRIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
HEXYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C9-C12+	trace	ND	ND	trace	ND	ND	ND	ND
FORMALDEHYDE	0.6	1.2	0.6	0.8	0.3	0.6	ND	0.3



**TABLE B-3 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/29/2008	1/30/2008	1/31/2008		1/29/2008	1/30/2008	1/31/2008	
	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3	Average
ACETALDEHYDE	0.3	0.3	0.2	0.3	ND	ND	ND	ND
ACROLEIN	0.1	0.1	0.1	0.1	ND	ND	ND	ND
ACETONE	ND	ND	1.0	0.3	ND	ND	0.9	0.3
PROPIONALDEHYDE	trace	ND	ND	trace	ND	ND	ND	ND
CROTONALDEHYDE	ND	ND	0.3	0.1	ND	ND	ND	ND
ISOBUTYRALDEHYDE, NOTE H	trace	ND	0.3	0.1	trace	ND	ND	trace
METHYL ETHYL KETONE, NOTE H	trace	ND	0.3	0.1	trace	ND	ND	trace
BENZALDEHYDE	ND	ND	0.1	trace	ND	ND	ND	ND
ISOVALERALDEHYDE	ND	trace	trace	trace	ND	ND	trace	trace
VALERALDEHYDE	0.1	trace	0.1	0.1	0.1	0.1	trace	0.1
O-TOLUALDEHYDE	ND	ND	ND	ND	ND	ND	ND	ND
M/P-TOLUALDEHYDE	ND	ND	ND	ND	trace	ND	ND	trace
HEXANALDEHYDE	trace	ND	ND	trace	trace	ND	ND	trace
DIMETHYLBENZALDEHYDE	ND	ND	ND	ND	ND	ND	ND	ND
SUMMED SPECIATED VALUES	46.8	29.8	36.0	37.6	50.7	30.6	34.0	38.4

A - 2,2-Dimethylpentane and methylcyclopentane co-elute. GC peak area split equally between the two compounds.

B - 3-Methyl-3-ethyl-pentane co-elutes with reported compound. Not reported separately.

C - Cis-1,4-Dimethylcyclohexane co-elutes with reported compound. Not reported separately.

D - Propylcyclopentane co-elutes with reported compound. Not reported separately.

E - 2,5-Dimethylheptane and 3,5-dimethylheptane co-elute. GC peak area split equally between the two compounds.

F - Decane and isobutylbenzene co-elute. GC peak area split equally between the two compounds.

G - n-Butylbenzene co-elutes with reported compound. Not reported separately.

H - Isobutyraldehyde and methyl ethyl ketone co-elute. LC peak area split equally between the two compounds.

ND = Not Detected

**TABLE B-4. COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/23/2008	1/24/2008	1/25/2008		1/23/2008	1/24/2008	1/25/2008	
	NPADD-1	NPADD-2	NPADD-3	Average	NPADD-1	NPADD-2	NPADD-3	Average
METHANE	10.0	15.9	17.3	14.4	20.0	20.8	16.3	19.0
ETHANE	0.4	0.5	0.3	0.4	0.4	0.4	0.3	0.3
ETHYLENE	23.0	23.7	24.5	23.7	25.2	22.8	22.9	23.6
PROPANE	ND	trace	ND	trace	ND	ND	ND	ND
PROPYLENE	4.5	4.0	4.7	4.4	4.7	3.9	4.4	4.3
ACETYLENE	ND	ND	ND	ND	ND	ND	ND	ND
PROPADIENE	ND	ND	ND	ND	ND	ND	ND	ND
BUTANE	trace	trace	ND	trace	trace	ND	ND	trace
TRANS-2-BUTENE	1.2	1.1	1.4	1.3	1.3	1.0	1.1	1.1
1-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLPROPENE (ISOBUTYLENE)	0.5	0.4	0.5	0.5	0.4	0.3	0.4	0.4
2,2-DIMETHYLPROPANE (NEOPENTANE)	ND	ND	ND	ND	ND	ND	ND	ND
PROPYNE	ND	ND	ND	ND	ND	ND	ND	ND
1,3-BUTADIENE	1.4	1.3	1.3	1.4	1.4	1.0	0.9	1.1
2-METHYLPROPANE (ISOBUTANE)	11.9	8.5	10.7	10.4	12.8	9.3	10.7	11.0
1-BUTYNE	ND	ND	ND	ND	ND	ND	ND	ND
METHANOL	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-1-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
ETHANOL	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLBUTANE (ISOPENTANE)	ND	ND	ND	ND	ND	ND	ND	ND
2-BUTYNE	ND	ND	ND	ND	ND	ND	ND	ND
1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYL-1-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
PENTANE	0.6	0.4	0.1	0.4	0.4	0.6	trace	0.3
UNIDENTIFIED C5 OLEFINS	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYL-1,3-BUTADIENE	0.3	ND	0.3	0.2	0.2	0.2	ND	0.1
TRANS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYL-1-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-4 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/23/2008	1/24/2008	1/25/2008	Average	1/23/2008	1/24/2008	1/25/2008	Average
	NPADD-1	NPADD-2	NPADD-3		NPADD-1	NPADD-2	NPADD-3	
2-METHYL-2-BUTENE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-BUTANOL	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOPENTADIENE	0.2	0.7	0.2	0.3	0.2	0.2	ND	0.1
2,2-DIMETHYLBUTANE	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOPENTENE	ND	0.2	ND	0.1	ND	0.2	ND	0.1
4-METHYL-1-PENTENE	ND	ND	ND	ND	0.3	ND	ND	0.1
3-METHYL-1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLBUTANE	0.5	0.3	0.6	0.5	0.5	0.3	0.2	0.3
MTBE	ND	ND	ND	ND	ND	ND	ND	ND
4-METHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLPENTANE	0.2	ND	ND	0.1	ND	ND	ND	ND
4-METHYL-TRANS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLPENTANE	0.8	0.8	0.8	0.8	0.7	0.6	ND	0.4
2-METHYL-1-PENTENE	0.5	0.5	0.5	0.5	0.5	0.3	0.1	0.3
1-HEXENE	0.5	0.5	0.5	0.5	0.5	0.3	0.1	0.3
HEXANE	ND	ND	0.2	0.1	ND	ND	ND	ND
UNIDENTIFIED C6	ND	0.4	ND	0.1	ND	1.0	ND	0.3
TRANS-3-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-3-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
DI-ISOPROPYL ETHER	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-TRANS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYL-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLCYCLOPENTENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
ETBE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLPENTANE, NOTE A	ND	ND	ND	ND	0.1	ND	ND	trace
METHYLCYCLOPENTANE, NOTE A	ND	ND	ND	ND	0.1	ND	ND	trace

**TABLE B-4 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/23/2008	1/24/2008	1/25/2008	Average	1/23/2008	1/24/2008	1/25/2008	Average
	NPADD-1	NPADD-2	NPADD-3		NPADD-1	NPADD-2	NPADD-3	
2,4-DIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,3-TRIMETHYLBUTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,4-DIMETHYL-1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYLCYCLOPENTENE	ND	ND	ND	ND	ND	ND	ND	ND
BENZENE	2.3	1.6	2.2	2.0	2.2	1.8	2.1	2.0
3-METHYL-1-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLPENTANE	ND	0.2	ND	0.1	ND	0.2	ND	0.1
1,1-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-AMYL METHYL ETHER	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOHEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLHEXANE	ND	ND	ND	ND	ND	0.2	ND	0.1
CIS-1,3-DIMETHYLCYCLOPENTANE	0.2	0.2	0.3	0.2	0.2	ND	ND	0.1
3-ETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,2-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,3-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
1-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,4-TRIMETHYLPENTANE	0.5	0.6	0.4	0.5	0.5	0.5	0.2	0.4
2-METHYL-1-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-3-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
HEPTANE	ND	0.2	ND	0.1	0.2	0.2	0.2	0.2
CIS-3-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C7	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYL-2-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYL-TRANS-3-HEXENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
3-ETHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-4 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/23/2008	1/24/2008	1/25/2008		1/23/2008	1/24/2008	1/25/2008	
	NPADD-1	NPADD-2	NPADD-3	Average	NPADD-1	NPADD-2	NPADD-3	Average
2,4,4-TRIMETHYL-1-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,3-DIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-HEPTENE	ND	ND	ND	ND	ND	ND	ND	ND
METHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1,1,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,5-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1-TRANS-2-CIS-4-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1-TRANS-2-CIS-3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
TOLUENE	0.4	0.1	0.2	0.2	0.3	0.1	0.1	0.2
2,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,4-DIMETHYLHEXANE, NOTE B	ND	ND	ND	ND	ND	ND	ND	ND
4-METHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
1-CIS,2-TRANS,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,3-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,4-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
3-ETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,5-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1-METHYL-3-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1-METHYL-3-ETHYLCYCLOPENTANE	0.3	0.3	0.5	0.4	0.4	0.3	ND	0.3

**TABLE B-4 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/23/2008	1/24/2008	1/25/2008		1/23/2008	1/24/2008	1/25/2008	
	NPADD-1	NPADD-2	NPADD-3	Average	NPADD-1	NPADD-2	NPADD-3	Average
1,1-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1-METHYL-2-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-1-ETHYL-CYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,2-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
1-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-4-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
OCTANE	ND	ND	0.2	0.1	0.2	ND	ND	0.1
UNIDENTIFIED C8	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,3-DIMETHYLCYCLOHEXANE, NOTE C	ND	ND	ND	ND	ND	ND	ND	ND
CIS-2-OCTENE	ND	ND	ND	ND	ND	ND	ND	ND
ISOPROPYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3,5-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1-METHYL-2-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
4,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,6-DIMETHYLHEPTANE, NOTE D	ND	ND	ND	ND	ND	ND	ND	ND
1,1,3-TRIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,5-DIMETHYLHEPTANE, NOTE E	ND	ND	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,5-DIMETHYLHEPTANE, NOTE E	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
m- & p-XYLENE	0.3	0.2	ND	0.2	0.3	ND	ND	0.1

**TABLE B-4 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NE<sub>x</sub>BTL™ RENEWABLE DIESEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/23/2008	1/24/2008	1/25/2008	Average	1/23/2008	1/24/2008	1/25/2008	Average
	NPADD-1	NPADD-2	NPADD-3		NPADD-1	NPADD-2	NPADD-3	
4-METHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
3,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
4-ETHYLHEPTANE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
3-METHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
STYRENE	ND	ND	ND	ND	ND	ND	ND	ND
o-XYLENE	0.2	ND	0.2	0.1	ND	ND	ND	ND
1-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-3-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
CIS-3-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
NONANE	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-2-NONENE	ND	ND	ND	ND	ND	ND	ND	ND
ISOPROPYLBENZENE (CUMENE)	ND	ND	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLOCTANE	ND	ND	ND	ND	ND	ND	ND	ND
n-PROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-3-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-2-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-BUTYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-DECENE	ND	ND	ND	ND	ND	ND	ND	ND
DECANE, NOTE F	ND	ND	ND	ND	ND	ND	ND	ND
ISOBUTYLBENZENE, NOTE F	ND	ND	ND	ND	ND	ND	ND	ND
1,3,-DIMETHYL-5-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
METHYLPROPYLBENZENE (sec butylbenzene)	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-3-ISOPROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-4-ISOPROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND

**TABLE B-4 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/23/2008	1/24/2008	1/25/2008		1/23/2008	1/24/2008	1/25/2008	
	NPADD-1	NPADD-2	NPADD-3	Average	NPADD-1	NPADD-2	NPADD-3	Average
INDAN	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-2-ISOPROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-3-N-PROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-4-N-PROPYLBENZENE, NOTE G	ND	ND	ND	ND	ND	ND	ND	ND
1,2 DIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1-METHYL-2-N-PROPYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DIMETHYL-2-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DIMETHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DIMETHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DIMETHYL-2-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
UNDECANE	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DIMETHYL-3-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-TETRAMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYLBUTYLBENZENE (sec AMYLBENZENE)	ND	ND	ND	ND	ND	ND	ND	ND
3,4 DIMETHYLCUMENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,5-TETRAMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-1-BUT-2-METHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4-TETRAMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
N-PENT-BENZENE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-1-BUT-3,5-DIMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
TERT-1-BUTYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
NAPHTHALENE	ND	ND	ND	ND	ND	ND	ND	ND
DODECANE	0.2	0.9	ND	0.4	ND	ND	0.2	0.1
1,3,5-TRIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRIETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
HEXYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C9-C12+	0.3	0.4	ND	0.2	ND	ND	ND	ND
FORMALDEHYDE	2.4	2.4	2.9	2.6	1.7	1.9	1.2	1.6



**TABLE B-4 (CONT'D). COLD- AND HOT HYDROCARBONS SPECIATION DATA FOR NEAT NExBTL™ RENEWABLE DIESEL WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Cold Transient, mg/hp-hr				Hot Transient, mg/hp-hr			
	1/23/2008	1/24/2008	1/25/2008		1/23/2008	1/24/2008	1/25/2008	
	NPADD-1	NPADD-2	NPADD-3	Average	NPADD-1	NPADD-2	NPADD-3	Average
ACETALDEHYDE	0.7	0.7	0.7	0.7	0.3	0.3	0.4	0.3
ACROLEIN	ND	0.1	ND	trace	ND	0.1	ND	trace
ACETONE	1.5	1.1	0.6	1.1	0.3	1.1	0.6	0.7
PROPIONALDEHYDE	ND	trace	ND	trace	ND	ND	ND	ND
CROTONALDEHYDE	ND	trace	0.8	0.3	ND	ND	ND	ND
ISOBUTYRALDEHYDE, NOTE H	0.1	0.1	0.6	0.2	0.1	0.6	0.5	0.4
METHYL ETHYL KETONE, NOTE H	0.1	0.1	0.6	0.2	0.1	ND	0.5	0.2
BENZALDEHYDE	ND	ND	ND	ND	ND	ND	ND	ND
ISOVALERALDEHYDE	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2
VALERALDEHYDE	0.3	0.1	trace	0.1	trace	ND	trace	trace
O-TOLUALDEHYDE	0.1	trace	trace	0.1	trace	0.0	0.1	trace
M/P-TOLUALDEHYDE	0.1	0.4	0.2	0.2	0.1	ND	ND	trace
HEXANALDEHYDE	trace	trace	trace	trace	0.1	ND	ND	trace
DIMETHYLBENZALDEHYDE	ND	ND	ND	ND	ND	ND	ND	ND
SUMMED SPECIATED VALUES	66.8	69.1	74.2	70.0	76.9	70.7	63.8	70.5

A - 2,2-Dimethylpentane and methylcyclopentane co-elute. GC peak area split equally between the two compounds.

B - 3-Methyl-3-ethyl-pentane co-elutes with reported compound. Not reported separately.

C - Cis-1,4-Dimethylcyclohexane co-elutes with reported compound. Not reported separately.

D - Propylcyclopentane co-elutes with reported compound. Not reported separately.

E - 2,5-Dimethylheptane and 3,5-dimethylheptane co-elute. GC peak area split equally between the two compounds.

F - Decane and isobutylbenzene co-elute. GC peak area split equally between the two compounds.

G - n-Butylbenzene co-elutes with reported compound. Not reported separately.

H - Isobutyraldehyde and methyl ethyl ketone co-elute. LC peak area split equally between the two compounds.

ND = Not Detected

**TABLE B-5. COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITH AFTERTREATMENT  
(BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	1/2/2008	1/3/2008	1/4/2008	1/29/2008	1/30/2008	1/31/2008
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3
METHANE	3.0	6.1	15.2	32.7	20.1	22.8
ETHANE	0.6	0.6	0.8	1.6	0.9	1.1
ETHYLENE	7.9	4.9	5.7	11.3	6.2	7.4
PROPANE	ND	trace	0.1	trace	trace	trace
PROPYLENE	1.2	0.9	0.9	0.4	0.3	0.3
ACETYLENE	ND	ND	ND	ND	ND	ND
PROPADIENE	ND	ND	ND	ND	ND	ND
BUTANE	trace	trace	trace	ND	0.1	trace
TRANS-2-BUTENE	trace	ND	0.2	0.2	ND	ND
1-BUTENE	0.1	trace	0.1	ND	ND	ND
2-METHYLPROPENE (ISOBUTYLENE)	0.3	0.2	0.2	ND	ND	ND
2,2-DIMETHYLPROPANE (NEOPENTANE)	0.1	trace	ND	ND	ND	ND
PROPYNE	ND	ND	ND	ND	ND	ND
1,3-BUTADIENE	0.1	ND	trace	ND	ND	ND
2-METHYLPROPANE (ISOBUTANE)	0.2	0.1	0.1	0.2	0.1	0.1
1-BUTYNE	ND	ND	ND	ND	ND	ND
METHANOL	ND	ND	ND	ND	ND	ND
CIS-2-BUTENE	ND	ND	trace	ND	ND	ND
3-METHYL-1-BUTENE	ND	ND	ND	ND	ND	ND
ETHANOL	ND	ND	ND	ND	ND	ND
2-METHYLBUTANE (ISOPENTANE)	ND	ND	ND	ND	ND	ND
2-BUTYNE	ND	ND	ND	ND	ND	ND
1-PENTENE	trace	ND	trace	ND	ND	ND
2-METHYL-1-BUTENE	0.1	ND	trace	ND	ND	ND
PENTANE	0.4	0.2	0.1	0.3	trace	ND
UNIDENTIFIED C5 OLEFINS	ND	ND	ND	ND	ND	ND
2-METHYL-1,3-BUTADIENE	0.0	ND	trace	ND	ND	ND
TRANS-2-PENTENE	ND	ND	trace	ND	ND	ND
3,3-DIMETHYL-1-BUTENE	ND	ND	ND	ND	ND	ND
CIS-2-PENTENE	ND	ND	ND	ND	ND	ND

**TABLE B-5 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITH  
AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	1/2/2008	1/3/2008	1/4/2008	1/29/2008	1/30/2008	1/31/2008
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3
2-METHYL-2-BUTENE	ND	ND	trace	ND	ND	ND
TERT-BUTANOL	ND	ND	ND	ND	ND	ND
CYCLOPENTADIENE	0.1	0.1	0.1	ND	ND	ND
2,2-DIMETHYLBUTANE	ND	ND	ND	ND	ND	ND
CYCLOPENTENE	ND	ND	ND	ND	ND	ND
4-METHYL-1-PENTENE	ND	ND	trace	ND	ND	ND
3-METHYL-1-PENTENE	ND	ND	ND	ND	ND	ND
CYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLBUTANE	trace	ND	trace	ND	0.2	ND
MTBE	ND	ND	ND	ND	ND	ND
4-METHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND
2-METHYLPENTANE	ND	ND	0.1	trace	0.1	ND
4-METHYL-TRANS-2-PENTENE	ND	ND	ND	ND	ND	ND
3-METHYLPENTANE	ND	trace	ND	trace	ND	ND
2-METHYL-1-PENTENE	trace	trace	trace	ND	ND	ND
1-HEXENE	trace	trace	trace	ND	ND	ND
HEXANE	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C6	ND	ND	0.6	0.2	0.7	0.2
TRANS-3-HEXENE	ND	ND	ND	ND	ND	ND
CIS-3-HEXENE	ND	ND	ND	ND	ND	ND
DI-ISOPROPYL ETHER	ND	ND	ND	ND	ND	ND
TRANS-2-HEXENE	ND	ND	ND	ND	ND	ND
3-METHYL-TRANS-2-PENTENE	ND	ND	ND	ND	ND	ND
2-METHYL-2-PENTENE	ND	ND	ND	ND	ND	ND
3-METHYLCYCLOPENTENE	ND	ND	ND	ND	ND	ND
CIS-2-HEXENE	ND	ND	ND	ND	ND	ND
ETBE	ND	ND	ND	ND	ND	ND
3-METHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLPENTANE, NOTE A	ND	ND	ND	ND	ND	ND
METHYLCYCLOPENTANE, NOTE A	ND	ND	ND	ND	ND	ND

**TABLE B-5 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITH  
AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	1/2/2008	1/3/2008	1/4/2008	1/29/2008	1/30/2008	1/31/2008
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3
2,4-DIMETHYLPENTANE	ND	ND	ND	ND	ND	ND
2,2,3-TRIMETHYLBUTANE	ND	ND	ND	ND	ND	ND
3,4-DIMETHYL-1-PENTENE	ND	ND	ND	ND	ND	ND
1-METHYLCYCLOPENTENE	ND	ND	ND	ND	ND	ND
BENZENE	0.8	0.5	0.8	1.6	0.8	0.9
3-METHYL-1-HEXENE	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLPENTANE	ND	ND	ND	ND	ND	ND
CYCLOHEXANE	ND	ND	ND	ND	ND	ND
2-METHYLHEXANE	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLPENTANE	trace	0.1	ND	ND	ND	ND
1,1-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
TERT-AMYL METHYL ETHER	ND	ND	ND	ND	ND	ND
CYCLOHEXENE	ND	ND	ND	ND	ND	ND
3-METHYLHEXANE	ND	ND	trace	0.2	ND	ND
CIS-1,3-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
3-ETHYLPENTANE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
TRANS-1,3-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
1-HEPTENE	ND	ND	ND	ND	ND	ND
2,2,4-TRIMETHYLPENTANE	0.1	0.1	trace	trace	trace	0.1
2-METHYL-1-HEXENE	ND	ND	ND	ND	ND	ND
TRANS-3-HEPTENE	ND	ND	ND	ND	ND	ND
HEPTANE	trace	trace	trace	0.2	ND	ND
CIS-3-HEPTENE	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C7	ND	ND	ND	ND	ND	ND
2-METHYL-2-HEXENE	ND	ND	ND	ND	ND	ND
3-METHYL-TRANS-3-HEXENE	ND	ND	ND	ND	ND	ND
TRANS-2-HEPTENE	ND	ND	ND	ND	ND	ND
3-ETHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYL-1-PENTENE	ND	ND	ND	ND	ND	ND

**TABLE B-5 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITH  
AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	1/2/2008	1/3/2008	1/4/2008	1/29/2008	1/30/2008	1/31/2008
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3
2,3-DIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND
CIS-2-HEPTENE	ND	ND	ND	ND	ND	ND
METHYLCYCLOHEXANE	ND	ND	trace	ND	ND	ND
CIS-1,2-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
1,1,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND
2,2,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND
2,5-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
1-TRANS-2-CIS-4-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
1-TRANS-2-CIS-3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,3,4-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND
2,3,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND
TOLUENE	0.5	0.3	0.4	0.1	0.2	trace
2,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
1,1,2-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2-METHYLHEPTANE	ND	ND	ND	ND	ND	ND
3,4-DIMETHYLHEXANE, NOTE B	ND	ND	ND	ND	ND	ND
4-METHYLHEPTANE	ND	ND	ND	ND	ND	ND
3-METHYLHEPTANE	ND	ND	ND	ND	ND	ND
1-CIS,2-TRANS,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
CIS-1,3-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND
TRANS-1,4-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND
3-ETHYLHEXANE	ND	ND	ND	ND	ND	ND
2,2,5-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
TRANS-1-METHYL-3-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
CIS-1-METHYL-3-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND

**TABLE B-5 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	1/2/2008	1/3/2008	1/4/2008	1/29/2008	1/30/2008	1/31/2008
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3
1,1-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND
TRANS-1-METHYL-2-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
1-METHYL-1-ETHYL-CYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
2,2,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND
1-OCTENE	ND	ND	ND	ND	ND	ND
TRANS-4-OCTENE	ND	ND	ND	ND	ND	ND
OCTANE	ND	ND	trace	ND	ND	ND
UNIDENTIFIED C8	ND	trace	ND	ND	ND	ND
TRANS-2-OCTENE	ND	ND	ND	ND	ND	ND
TRANS-1,3-DIMETHYLCYCLOHEXANE, NOTE C	ND	ND	ND	ND	ND	ND
CIS-2-OCTENE	ND	ND	ND	ND	ND	ND
ISOPROPYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND
2,3,5-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
CIS-1-METHYL-2-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND
4,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND
CIS-1,2-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND
ETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND
2,6-DIMETHYLHEPTANE, NOTE D	ND	ND	ND	ND	ND	ND
1,1,3-TRIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND
2,5-DIMETHYLHEPTANE, NOTE E	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND
3,5-DIMETHYLHEPTANE, NOTE E	ND	ND	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	trace	ND	ND	ND
2,3,4-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND
m- & p-XYLENE	ND	ND	0.1	0.4	ND	trace

**TABLE B-5 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITH  
AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	1/2/2008	1/3/2008	1/4/2008	1/29/2008	1/30/2008	1/31/2008
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3
4-METHYLOCTANE	ND	ND	ND	ND	ND	ND
3,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND
4-ETHYLHEPTANE	ND	ND	ND	ND	ND	ND
2-METHYLOCTANE	ND	ND	ND	ND	ND	ND
3-METHYLOCTANE	ND	ND	ND	ND	ND	ND
STYRENE	ND	ND	ND	ND	ND	ND
o-XYLENE	ND	ND	trace	0.2	ND	ND
1-NONENE	ND	ND	ND	ND	ND	ND
TRANS-3-NONENE	ND	ND	ND	ND	ND	ND
CIS-3-NONENE	ND	ND	ND	ND	ND	ND
NONANE	ND	ND	ND	ND	ND	ND
TRANS-2-NONENE	ND	ND	ND	ND	ND	ND
ISOPROPYLBENZENE (CUMENE)	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLOCTANE	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLOCTANE	ND	ND	ND	ND	ND	ND
n-PROPYLBENZENE	ND	ND	ND	ND	ND	ND
1-METHYL-3-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
1-METHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
1,3,5-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND
1-METHYL-2-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
1,2,4-TRIMETHYLBENZENE	trace	ND	0.1	ND	ND	ND
TERT-BUTYLBENZENE	ND	ND	ND	ND	ND	ND
1-DECENE	ND	ND	ND	ND	ND	ND
DECANE, NOTE F	trace	trace	trace	ND	ND	ND
ISOBUTYLBENZENE, NOTE F	ND	ND	trace	ND	ND	ND
1,3,-DIMETHYL-5-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
METHYLPROPYLBENZENE (sec butylbenzene)	ND	ND	ND	ND	ND	ND
1-METHYL-3-ISOPROPYLBENZENE	trace	trace	trace	ND	ND	ND
1,2,3-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND
1-METHYL-4-ISOPROPYLBENZENE	ND	ND	ND	ND	ND	ND

**TABLE B-5 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITH  
AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	1/2/2008	1/3/2008	1/4/2008	1/29/2008	1/30/2008	1/31/2008
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3
INDAN	ND	ND	ND	ND	ND	ND
1-METHYL-2-ISOPROPYLBENZENE	trace	ND	trace	ND	ND	ND
1,3-DIETHYLBENZENE	ND	ND	ND	ND	ND	ND
1,4-DIETHYLBENZENE	ND	ND	ND	ND	ND	ND
1-METHYL-3-N-PROPYLBENZENE	ND	ND	ND	ND	ND	ND
1-METHYL-4-N-PROPYLBENZENE, NOTE G	ND	ND	ND	ND	ND	ND
1,2 DIETHYLBENZENE	ND	ND	ND	ND	ND	ND
1-METHYL-2-N-PROPYLBENZENE	ND	ND	ND	ND	ND	ND
1,4-DIMETHYL-2-ETHYLBENZENE	0.1	ND	trace	ND	ND	ND
1,3-DIMETHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
1,2-DIMETHYL-4-ETHYLBENZENE	0.1	ND	0.1	ND	ND	ND
1,3-DIMETHYL-2-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
UNDECANE	trace	trace	0.1	ND	ND	ND
1,2-DIMETHYL-3-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
1,2,4,5-TETRAMETHYLBENZENE	0.1	0.1	0.1	ND	ND	ND
2-METHYLBUTYLBENZENE (sec AMYLBENZENE)	ND	ND	ND	ND	ND	ND
3,4 DIMETHYLCUMENE	ND	ND	ND	ND	ND	ND
1,2,3,5-TETRAMETHYLBENZENE	ND	ND	ND	ND	ND	ND
TERT-1-BUT-2-METHYLBENZENE	trace	ND	ND	ND	ND	ND
1,2,3,4-TETRAMETHYLBENZENE	trace	ND	trace	ND	ND	ND
N-PENT-BENZENE	trace	ND	trace	ND	ND	ND
TERT-1-BUT-3,5-DIMETHYLBENZENE	trace	0.2	ND	ND	ND	ND
TERT-1-BUTYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
NAPHTHALENE	ND	ND	ND	ND	ND	ND
DODECANE	0.2	trace	0.1	ND	ND	ND
1,3,5-TRIETHYLBENZENE	ND	ND	ND	ND	ND	ND
1,2,4-TRIETHYLBENZENE	ND	ND	ND	ND	ND	ND
HEXYLBENZENE	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C9-C12+	0.3	0.2	0.3	trace	ND	ND
FORMALDEHYDE	2.0	0.4	0.8	0.3	0.7	0.1



**TABLE B-5 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITH AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	1/2/2008	1/3/2008	1/4/2008	1/29/2008	1/30/2008	1/31/2008
	NPBASECAT-1	NPBASECAT-2	NPBASECAT-3	NPADDCAT-1	NPADDCAT-2	NPADDCAT-3
ACETALDEHYDE	0.5	0.2	0.4	trace	trace	trace
ACROLEIN	0.1	0.0	trace	trace	trace	trace
ACETONE	0.5	0.2	ND	ND	ND	0.9
PROPIONALDEHYDE	trace	ND	ND	trace	ND	ND
CROTONALDEHYDE	ND	ND	trace	ND	ND	trace
ISOBUTYRALDEHYDE, NOTE H	trace	trace	trace	trace	ND	trace
METHYL ETHYL KETONE, NOTE H	trace	trace	trace	trace	ND	trace
BENZALDEHYDE	trace	trace	trace	ND	ND	ND
ISOVALERALDEHYDE	trace	ND	trace	ND	trace	trace
VALERALDEHYDE	0.1	0.2	trace	0.1	0.1	0.1
O-TOLUALDEHYDE	ND	ND	ND	ND	ND	ND
M/P-TOLUALDEHYDE	trace	trace	trace	trace	ND	ND
HEXANALDEHYDE	trace	ND	ND	trace	ND	ND
DIMETHYLBENZALDEHYDE	ND	ND	ND	ND	ND	ND
SUMMED SPECIATED VALUES	19.8	15.7	28.2	50.2	30.5	34.3

A - 2,2-Dimethylpentane and methylcyclopentane co-elute. GC peak area split equally between the two compounds.

B - 3-Methyl-3-ethyl-pentane co-elutes with reported compound. Not reported separately.

C - Cis-1,4-Dimethylcyclohexane co-elutes with reported compound. Not reported separately.

D - Propylcyclopentane co-elutes with reported compound. Not reported separately.

E - 2,5-Dimethylheptane and 3,5-dimethylheptane co-elute. GC peak area split equally between the two compounds.

F - Decane and isobutylbenzene co-elute. GC peak area split equally between the two compounds.

G - n-Butylbenzene co-elutes with reported compound. Not reported separately.

H - Isobutyraldehyde and methyl ethyl ketone co-elute. LC peak area split equally between the two compounds.

ND = Not Detected

**TABLE B-6. COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITHOUT AFTERTREATMENT  
(BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	12/17/2007	12/18/2007	12/19/2007	1/23/2008	1/24/2008	1/25/2008
	NPBASE-1	NPBASE-2	NPBASE-3	NPADD-1	NPADD-2	NPADD-3
METHANE	16.5	14.1	12.6	18.6	20.1	16.5
ETHANE	0.5	0.4	0.8	0.4	0.4	0.3
ETHYLENE	34.9	33.2	33.3	24.9	22.9	23.1
PROPANE	ND	ND	trace	ND	trace	ND
PROPYLENE	7.7	7.6	7.4	4.7	3.9	4.5
ACETYLENE	ND	ND	ND	ND	ND	ND
PROPADIENE	0.3	0.3	0.3	ND	ND	ND
BUTANE	trace	trace	trace	trace	trace	ND
TRANS-2-BUTENE	0.3	0.3	0.3	1.3	1.0	1.1
1-BUTENE	1.7	1.6	1.6	ND	ND	ND
2-METHYLPROPENE (ISOBUTYLENE)	1.2	1.1	1.1	0.4	0.3	0.4
2,2-DIMETHYLPROPANE (NEOPENTANE)	0.2	0.1	trace	ND	ND	ND
PROPYNE	ND	ND	ND	ND	ND	ND
1,3-BUTADIENE	2.9	2.8	2.7	1.4	1.0	1.0
2-METHYLPROPANE (ISOBUTANE)	10.7	10.4	10.5	12.7	9.2	10.7
1-BUTYNE	ND	ND	ND	ND	ND	ND
METHANOL	ND	ND	ND	ND	ND	ND
CIS-2-BUTENE	0.2	0.2	0.2	ND	ND	ND
3-METHYL-1-BUTENE	ND	ND	ND	ND	ND	ND
ETHANOL	ND	ND	ND	ND	ND	ND
2-METHYLBUTANE (ISOPENTANE)	0.7	0.7	0.6	ND	ND	ND
2-BUTYNE	ND	ND	ND	ND	ND	ND
1-PENTENE	0.6	0.5	0.5	ND	ND	ND
2-METHYL-1-BUTENE	1.2	0.8	0.3	ND	ND	ND
PENTANE	1.0	0.8	0.2	0.4	0.6	trace
UNIDENTIFIED C5 OLEFINS	0.0	trace	trace	ND	ND	ND
2-METHYL-1,3-BUTADIENE	0.6	0.5	0.6	0.2	0.2	trace
TRANS-2-PENTENE	0.2	trace	0.2	ND	ND	ND
3,3-DIMETHYL-1-BUTENE	ND	ND	ND	ND	ND	ND
CIS-2-PENTENE	ND	ND	ND	ND	ND	ND

**TABLE B-6 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITHOUT  
AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	12/17/2007	12/18/2007	12/19/2007	1/23/2008	1/24/2008	1/25/2008
	NPBASE-1	NPBASE-2	NPBASE-3	NPADD-1	NPADD-2	NPADD-3
2-METHYL-2-BUTENE	ND	trace	ND	ND	ND	ND
TERT-BUTANOL	ND	ND	ND	ND	ND	ND
CYCLOPENTADIENE	0.6	0.1	0.1	0.2	0.3	trace
2,2-DIMETHYLBUTANE	0.2	0.2	0.2	ND	ND	ND
CYCLOPENTENE	0.3	trace	trace	ND	0.2	ND
4-METHYL-1-PENTENE	0.3	0.2	0.2	0.2	ND	ND
3-METHYL-1-PENTENE	ND	ND	ND	ND	ND	ND
CYCLOPENTANE	0.5	0.4	0.5	ND	ND	ND
2,3-DIMETHYLBUTANE	ND	0.1	0.2	0.5	0.3	0.2
MTBE	ND	ND	ND	ND	ND	ND
4-METHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND
2-METHYLPENTANE	ND	0.2	0.2	0.0	ND	ND
4-METHYL-TRANS-2-PENTENE	ND	ND	ND	ND	ND	ND
3-METHYLPENTANE	1.6	0.9	1.7	0.7	0.6	0.1
2-METHYL-1-PENTENE	0.5	0.4	0.4	0.5	0.3	0.2
1-HEXENE	0.5	0.4	0.4	0.5	0.3	0.2
HEXANE	trace	ND	ND	ND	ND	trace
UNIDENTIFIED C6	1.4	1.5	0.2	ND	0.9	ND
TRANS-3-HEXENE	ND	ND	ND	ND	ND	ND
CIS-3-HEXENE	ND	ND	ND	ND	ND	ND
DI-ISOPROPYL ETHER	ND	ND	ND	ND	ND	ND
TRANS-2-HEXENE	ND	ND	ND	ND	ND	ND
3-METHYL-TRANS-2-PENTENE	trace	trace	ND	ND	ND	ND
2-METHYL-2-PENTENE	ND	ND	ND	ND	ND	ND
3-METHYLCYCLOPENTENE	ND	ND	ND	ND	ND	ND
CIS-2-HEXENE	ND	ND	ND	ND	ND	ND
ETBE	ND	ND	ND	ND	ND	ND
3-METHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLPENTANE, NOTE A	0.1	trace	0.1	0.1	ND	ND
METHYLCYCLOPENTANE, NOTE A	0.1	trace	0.1	0.1	ND	ND

**TABLE B-6 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	12/17/2007	12/18/2007	12/19/2007	1/23/2008	1/24/2008	1/25/2008
	NPBASE-1	NPBASE-2	NPBASE-3	NPADD-1	NPADD-2	NPADD-3
2,4-DIMETHYLPENTANE	trace	ND	ND	ND	ND	ND
2,2,3-TRIMETHYLBUTANE	ND	ND	ND	ND	ND	ND
3,4-DIMETHYL-1-PENTENE	0.2	ND	ND	ND	ND	ND
1-METHYLCYCLOPENTENE	ND	trace	ND	ND	ND	ND
BENZENE	3.8	3.4	3.3	2.2	1.8	2.1
3-METHYL-1-HEXENE	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLPENTANE	ND	ND	ND	ND	ND	ND
CYCLOHEXANE	ND	ND	ND	ND	ND	ND
2-METHYLHEXANE	ND	ND	ND	ND	ND	ND
2,3-DIMETHYLPENTANE	ND	trace	trace	ND	0.2	ND
1,1-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
TERT-AMYL METHYL ETHER	ND	ND	ND	ND	ND	ND
CYCLOHEXENE	ND	ND	ND	ND	ND	ND
3-METHYLHEXANE	ND	ND	trace	ND	0.2	ND
CIS-1,3-DIMETHYLCYCLOPENTANE	0.2	0.2	0.2	0.2	trace	trace
3-ETHYLPENTANE	ND	ND	ND	ND	ND	ND
TRANS-1,2-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
TRANS-1,3-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
1-HEPTENE	ND	ND	ND	ND	ND	ND
2,2,4-TRIMETHYLPENTANE	0.4	0.4	0.3	0.5	0.5	0.2
2-METHYL-1-HEXENE	ND	ND	ND	ND	ND	ND
TRANS-3-HEPTENE	ND	ND	ND	ND	ND	ND
HEPTANE	0.2	ND	0.1	0.2	0.2	0.2
CIS-3-HEPTENE	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C7	ND	0.1	ND	ND	ND	ND
2-METHYL-2-HEXENE	ND	ND	ND	ND	ND	ND
3-METHYL-TRANS-3-HEXENE	ND	ND	ND	ND	ND	ND
TRANS-2-HEPTENE	ND	ND	ND	ND	ND	ND
3-ETHYL-CIS-2-PENTENE	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYL-1-PENTENE	ND	ND	ND	ND	ND	ND

**TABLE B-6 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITHOUT  
AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	12/17/2007	12/18/2007	12/19/2007	1/23/2008	1/24/2008	1/25/2008
	NPBASE-1	NPBASE-2	NPBASE-3	NPADD-1	NPADD-2	NPADD-3
2,3-DIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND
CIS-2-HEPTENE	ND	ND	ND	ND	ND	ND
METHYLCYCLOHEXANE	trace	trace	0.2	ND	ND	ND
CIS-1,2-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
1,1,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND
2,2,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND
2,5-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLHEXANE	ND	0.2	trace	ND	ND	ND
1-TRANS-2-CIS-4-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
1-TRANS-2-CIS-3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,3,4-TRIMETHYLPENTANE	trace	trace	trace	ND	ND	ND
2,3,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND
TOLUENE	1.3	1.4	0.9	0.3	0.1	0.1
2,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
1,1,2-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2-METHYLHEPTANE	ND	ND	ND	ND	ND	ND
3,4-DIMETHYLHEXANE, NOTE B	ND	ND	ND	ND	ND	ND
4-METHYLHEPTANE	ND	ND	ND	ND	ND	ND
3-METHYLHEPTANE	ND	ND	ND	ND	ND	ND
1-CIS,2-TRANS,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
CIS-1,3-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND
TRANS-1,4-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND
3-ETHYLHEXANE	ND	ND	ND	ND	ND	ND
2,2,5-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
TRANS-1-METHYL-3-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
CIS-1-METHYL-3-ETHYLCYCLOPENTANE	0.3	0.2	0.2	0.4	0.3	0.1

**TABLE B-6 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	12/17/2007	12/18/2007	12/19/2007	1/23/2008	1/24/2008	1/25/2008
	NPBASE-1	NPBASE-2	NPBASE-3	NPADD-1	NPADD-2	NPADD-3
2,3-DIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND
CIS-2-HEPTENE	ND	ND	ND	ND	ND	ND
METHYLCYCLOHEXANE	trace	trace	0.2	ND	ND	ND
CIS-1,2-DIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
1,1,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,4,4-TRIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND
2,2,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND
2,5-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLHEXANE	ND	0.2	trace	ND	ND	ND
1-TRANS-2-CIS-4-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
3,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
1-TRANS-2-CIS-3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2,3,4-TRIMETHYLPENTANE	trace	trace	trace	ND	ND	ND
2,3,3-TRIMETHYLPENTANE	ND	ND	ND	ND	ND	ND
TOLUENE	1.3	1.4	0.9	0.3	0.1	0.1
2,3-DIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
1,1,2-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
2-METHYLHEPTANE	ND	ND	ND	ND	ND	ND
3,4-DIMETHYLHEXANE, NOTE B	ND	ND	ND	ND	ND	ND
4-METHYLHEPTANE	ND	ND	ND	ND	ND	ND
3-METHYLHEPTANE	ND	ND	ND	ND	ND	ND
1-CIS,2-TRANS,3-TRIMETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
CIS-1,3-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND
TRANS-1,4-DIMETHYLCYCLOHEXANE	ND	ND	ND	ND	ND	ND
3-ETHYLHEXANE	ND	ND	ND	ND	ND	ND
2,2,5-TRIMETHYLHEXANE	ND	ND	ND	ND	ND	ND
TRANS-1-METHYL-3-ETHYLCYCLOPENTANE	ND	ND	ND	ND	ND	ND
CIS-1-METHYL-3-ETHYLCYCLOPENTANE	0.3	0.2	0.2	0.4	0.3	0.1

**TABLE B-6 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITHOUT  
AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	12/17/2007	12/18/2007	12/19/2007	1/23/2008	1/24/2008	1/25/2008
	NPBASE-1	NPBASE-2	NPBASE-3	NPADD-1	NPADD-2	NPADD-3
4-METHYLOCTANE	ND	ND	ND	ND	ND	ND
3,4-DIMETHYLHEPTANE	ND	ND	ND	ND	ND	ND
4-ETHYLHEPTANE	ND	ND	ND	ND	ND	ND
2-METHYLOCTANE	ND	ND	ND	ND	ND	ND
3-METHYLOCTANE	ND	ND	ND	ND	ND	ND
STYRENE	ND	ND	ND	ND	ND	ND
o-XYLENE	0.3	0.3	0.3	trace	ND	trace
1-NONENE	trace	trace	trace	ND	ND	ND
TRANS-3-NONENE	ND	ND	ND	ND	ND	ND
CIS-3-NONENE	ND	ND	ND	ND	ND	ND
NONANE	0.2	trace	0.2	ND	ND	ND
TRANS-2-NONENE	ND	ND	ND	ND	ND	ND
ISOPROPYLBENZENE (CUMENE)	ND	ND	ND	ND	ND	ND
2,2-DIMETHYLOCTANE	ND	ND	ND	ND	ND	ND
2,4-DIMETHYLOCTANE	ND	trace	ND	ND	ND	ND
n-PROPYLBENZENE	trace	trace	trace	ND	ND	ND
1-METHYL-3-ETHYLBENZENE	trace	trace	0.2	ND	ND	ND
1-METHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
1,3,5-TRIMETHYLBENZENE	trace	trace	trace	ND	ND	ND
1-METHYL-2-ETHYLBENZENE	ND	ND	trace	ND	ND	ND
1,2,4-TRIMETHYLBENZENE	0.7	0.8	0.7	ND	ND	ND
TERT-BUTYLBENZENE	ND	ND	ND	ND	ND	ND
1-DECENE	ND	ND	ND	ND	ND	ND
DECANE, NOTE F	0.1	0.2	0.1	ND	ND	ND
ISOBUTYLBENZENE, NOTE F	0.1	0.2	0.1	ND	ND	ND
1,3,-DIMETHYL-5-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
METHYLPROPYLBENZENE (sec butylbenzene)	ND	ND	ND	ND	ND	ND
1-METHYL-3-ISOPROPYLBENZENE	0.2	trace	trace	ND	ND	ND
1,2,3-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND
1-METHYL-4-ISOPROPYLBENZENE	ND	ND	ND	ND	ND	ND

**TABLE B-6 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITHOUT  
AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	12/17/2007	12/18/2007	12/19/2007	1/23/2008	1/24/2008	1/25/2008
	NPBASE-1	NPBASE-2	NPBASE-3	NPADD-1	NPADD-2	NPADD-3
INDAN	ND	ND	ND	ND	ND	ND
1-METHYL-2-ISOPROPYLBENZENE	0.3	0.2	0.2	ND	ND	ND
1,3-DIETHYLBENZENE	ND	ND	ND	ND	ND	ND
1,4-DIETHYLBENZENE	0.2	trace	0.3	ND	ND	ND
1-METHYL-3-N-PROPYLBENZENE	ND	0.2	0.1	ND	ND	ND
1-METHYL-4-N-PROPYLBENZENE, NOTE G	ND	ND	ND	ND	ND	ND
1,2 DIETHYLBENZENE	0.1	trace	trace	ND	ND	ND
1-METHYL-2-N-PROPYLBENZENE	ND	ND	ND	ND	ND	ND
1,4-DIMETHYL-2-ETHYLBENZENE	0.5	0.1	0.4	ND	ND	ND
1,3-DIMETHYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
1,2-DIMETHYL-4-ETHYLBENZENE	0.2	0.2	0.1	ND	ND	ND
1,3-DIMETHYL-2-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
UNDECANE	0.3	0.3	0.2	ND	ND	ND
1,2-DIMETHYL-3-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
1,2,4,5-TETRAMETHYLBENZENE	0.7	0.5	1.0	ND	ND	ND
2-METHYLBUTYLBENZENE (sec AMYLBENZENE)	ND	ND	ND	ND	ND	ND
3,4 DIMETHYLCUMENE	ND	ND	ND	ND	ND	ND
1,2,3,5-TETRAMETHYLBENZENE	ND	ND	ND	ND	ND	ND
TERT-1-BUT-2-METHYLBENZENE	0.6	0.2	0.3	ND	ND	ND
1,2,3,4-TETRAMETHYLBENZENE	0.3	0.4	0.4	ND	ND	ND
N-PENT-BENZENE	0.2	0.2	0.2	ND	ND	ND
TERT-1-BUT-3,5-DIMETHYLBENZENE	1.3	0.9	0.4	ND	ND	ND
TERT-1-BUTYL-4-ETHYLBENZENE	ND	ND	ND	ND	ND	ND
NAPHTHALENE	ND	ND	ND	ND	ND	ND
DODECANE	0.3	0.7	0.5	trace	0.1	0.2
1,3,5-TRIETHYLBENZENE	ND	ND	ND	ND	ND	ND
1,2,4-TRIETHYLBENZENE	ND	ND	ND	ND	ND	ND
HEXYLBENZENE	ND	ND	ND	ND	ND	ND
UNIDENTIFIED C9-C12+	4.5	3.8	2.3	trace	0.1	ND
FORMALDEHYDE	3.1	ND	3.0	1.8	2.0	1.5



**TABLE B-6 (CONT'D). COMPARISON OF COMPOSITE HYDROCARBON SPECIATION DATA WITHOUT AFTERTREATMENT (BACKGROUND CORRECTED)**

COMPOUND	Composite, mg/hp-hr			Composite, mg/hp-hr		
	12/17/2007	12/18/2007	12/19/2007	1/23/2008	1/24/2008	1/25/2008
	NPBASE-1	NPBASE-2	NPBASE-3	NPADD-1	NPADD-2	NPADD-3
ACETALDEHYDE	0.3	0.1	0.2	0.3	0.3	0.5
ACROLEIN	ND	ND	trace	ND	0.1	ND
ACETONE	0.1	ND	0.8	0.5	1.1	0.6
PROPIONALDEHYDE	trace	ND	trace	ND	trace	ND
CROTONALDEHYDE	0.2	trace	0.1	ND	trace	0.1
ISOBUTYRALDEHYDE, NOTE H	ND	0.1	ND	0.1	0.5	0.5
METHYL ETHYL KETONE, NOTE H	ND	0.1	ND	0.1	trace	0.5
BENZALDEHYDE	1.5	0.3	ND	ND	ND	ND
ISOVALERALDEHYDE	trace	trace	0.4	0.2	0.2	0.2
VALERALDEHYDE	ND	0.1	ND	0.1	trace	trace
O-TOLUALDEHYDE	0.0	ND	0.2	0.1	trace	0.1
M/P-TOLUALDEHYDE	0.1	ND	ND	0.1	0.1	trace
HEXANALDEHYDE	ND	trace	0.1	0.1	trace	trace
DIMETHYLBENZALDEHYDE	0.0	trace	0.2	ND	ND	ND
SUMMED SPECIATED VALUES	111.7	97.2	97.1	75.5	70.4	65.3

A - 2,2-Dimethylpentane and methylcyclopentane co-elute. GC peak area split equally between the two compounds.

B - 3-Methyl-3-ethyl-pentane co-elutes with reported compound. Not reported separately.

C - Cis-1,4-Dimethylcyclohexane co-elutes with reported compound. Not reported separately.

D - Propylcyclopentane co-elutes with reported compound. Not reported separately.

E - 2,5-Dimethylheptane and 3,5-dimethylheptane co-elute. GC peak area split equally between the two compounds.

F - Decane and isobutylbenzene co-elute. GC peak area split equally between the two compounds.

G - n-Butylbenzene co-elutes with reported compound. Not reported separately.

H - Isobutyraldehyde and methyl ethyl ketone co-elute. LC peak area split equally between the two compounds.

ND = Not Detected

END